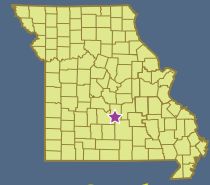


Upper Gasconade River Hills

Conservation Opportunity Area



Ozark
Highlands



The Gasconade River supports a variety of fish, crayfish, mussels and amphibians.

Paul W. Nelson, U.S. Forest Service

Early land surveyors described the landscape surrounding the Gasconade River as “hilly, stony, thin soil, unfit for cultivation.” Oak woodlands, savannas and forests occupy the uplands with glades scattered throughout. Bottomlands were historically wooded. Like much of the Ozarks, the Upper Gasconade landscape includes sinkholes, losing streams, springs, fens and caves.

The Upper Gasconade River Hills Conservation Opportunity Area (COA) includes portions of the Gasconade River and Roubidoux Creek. Much of the land is owned by the U.S. Forest Service (Mark Twain National Forest) and the U.S. Department of Defense (Fort Leonard Wood).

The Upper Gasconade River has a diverse aquatic natural community and remains one of the few Ozark rivers unaffected by dams. Freshwater mussels are important for healthy rivers and streams. They provide food for muskrats, raccoons, river otters and some birds. Since mussels are filter-feeders, they are important indicators of clean water. Thirty-five kinds of mussels have been observed in the Gasconade River basin, including seven species of conservation concern. A primary interest for this landscape is to improve aquatic habitat for mussels, which will benefit crystal darters, least darters, bluestripe darters, eastern hellbenders and sport fish.

Upper Gasconade Conservation Strategies

- Restore riparian corridors to conserve declining mussels, fish and hellbenders.
- Restore large, contiguous woodlands and forests to improve upland habitat for declining forest dwelling songbirds, rare plants and other terrestrial plants and animals.
- Improve habitat and implement Best Management Practices on private lands adjacent to the existing conservation network.
- Develop workshops, field days and stream teams to balance wildlife with the needs of the citizenry who live, work and recreate in the Upper Gasconade River Hills.
- Improve water quality through cooperative water quality improvement projects in local communities.



Paul W. Nelson, U.S. Forest Service

The **Western Star Flatwoods** (Mark Twain National Forest) are characterized by a dense layer of soil that restricts water drainage and tree root growth.

Priority Research and Inventory Needs

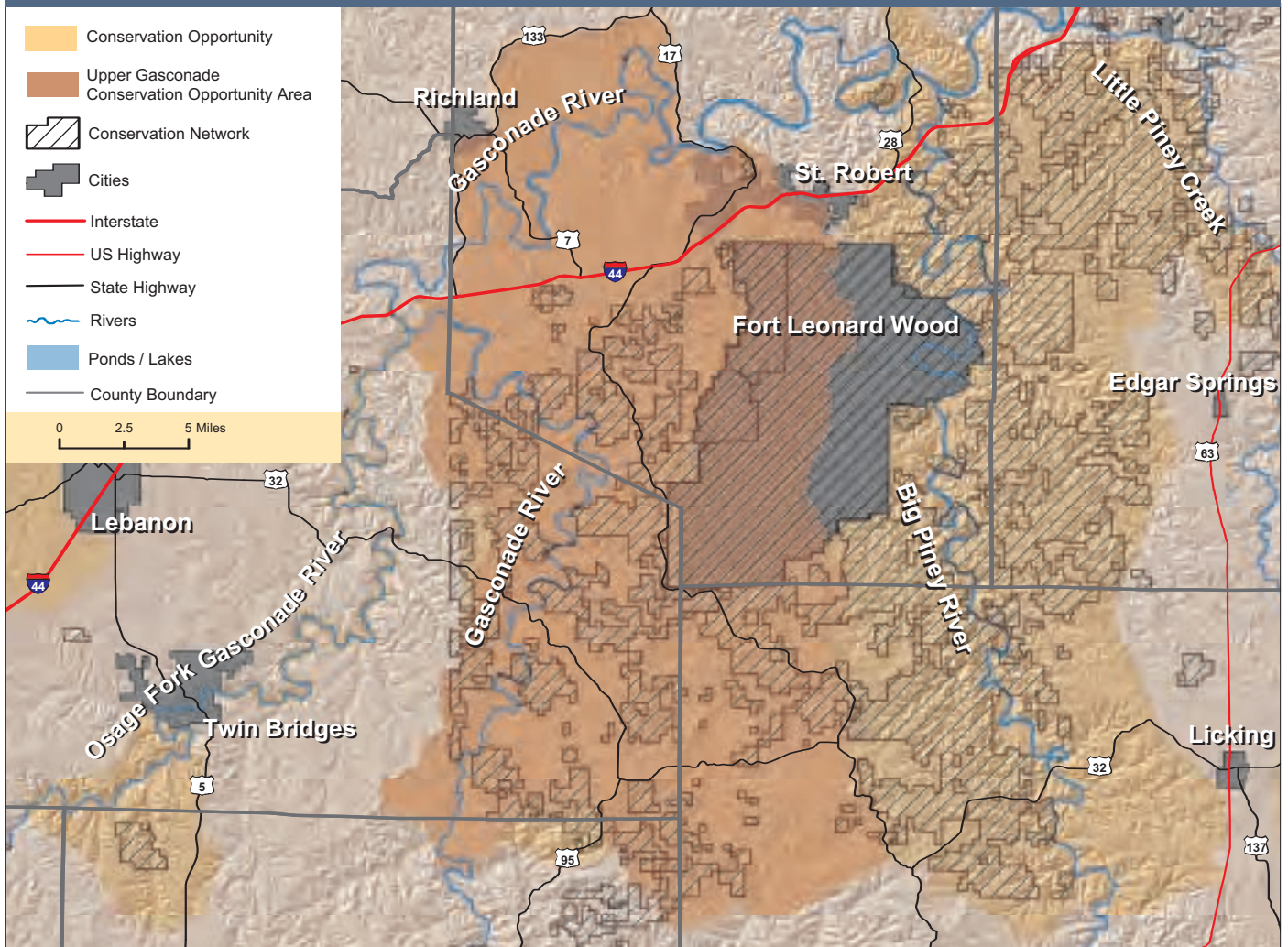
- Inventory aquatic life.
- Gather baseline data on forest dwelling birds; use Breeding Bird Survey data and Christmas Count data to determine abundance of birds.
- Determine the success of new stream restoration techniques.
- Document cave and spring recharge areas.
- Inventory caves and cave life.
- Inventory the extent of non-native invasive species.

Conservation Partners

Existing: Ozark Regional Land Trust (ORLT); U.S. Forest Service (USFS); Missouri Department of Conservation (MDC); U.S. Fish and Wildlife Service (USFWS)

Potential: The Nature Conservancy – Missouri Chapter; Central Hardwoods Joint Venture; Roubidoux Fly Fishers Association; Trout Unlimited; Audubon Missouri; American Fisheries Society; Missouri Stream Teams; National Wild Turkey Federation (NWTf); private landowners; Natural Resources Conservation Service (NRCS); U.S. Department of Defense (DOD)

Upper Gasconade Conservation Opportunity Area



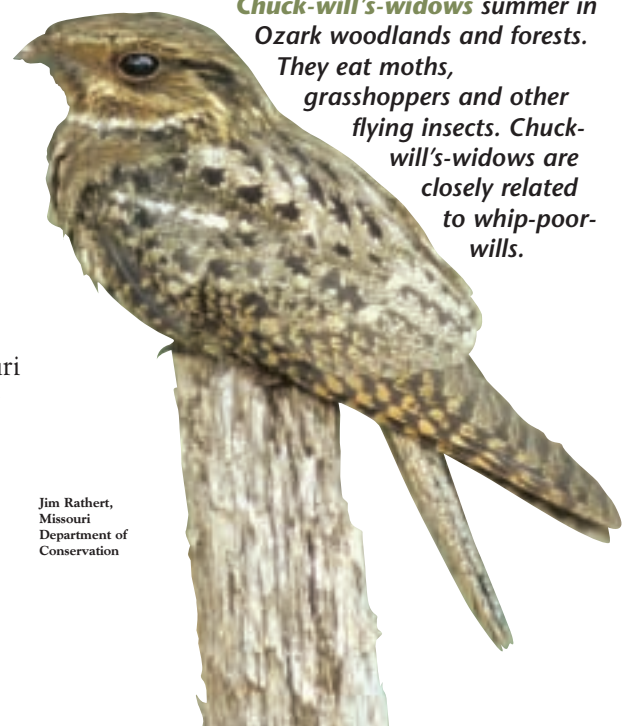
Funding Sources

Existing: USFS annual budget; DOD annual budget; MDC annual budget; MDC Private Lands Cost Share Program; ORLT annual budget; Farm Service Agency Conservation Reserve Program; NRCS Wildlife Habitat Incentive Program; NRCS Environmental Quality Incentives Program; Soil and Water Conservation District State Cost Share Funds

Promising Future Sources: MDC State Wildlife Grants; MDC Wildlife Diversity Fund; MDC Forest Legacy Program; USFWS Partners for Fish and Wildlife Program; USFWS Fish Passage Funds; USFWS Non-Game Bird Funds; Missouri Department of Natural Resources 319 Grants; Environmental Protection Agency Targeted Watersheds Grant Program; Missouri Bird Conservation Initiative Grants; NWTF Wild Turkey Super Fund; National Fish and Wildlife Foundation Grants

Existing Conservation Network

Mark Twain National Forest – Houston/Rolla District; Fort Leonard Wood; Roubidoux Creek Conservation Area; Great Spirit Cave Conservation Area; Adams Access; Schlicht Springs Access; Mitschele Access; Ozark Regional Land Trust Easements



Chuck-will's-widows summer in Ozark woodlands and forests. They eat moths, grasshoppers and other flying insects. Chuck-will's-widows are closely related to whip-poor-wills.

Jim Rathert,
Missouri
Department of
Conservation

Monitoring Mussels



Sue Bruenderman and Scott Faiman monitor mussel populations in the Gasconade River. Missouri Department of Conservation researchers crawl along streambeds wearing wet suits and weighted diving belts. Researchers are finding more Asian clams than native mussels in the Gasconade River. Asian clams are an introduced, invasive species that are more tolerant of poor water quality.

Jim Rathert, Missouri
Department of Conservation

Conservation Challenges

The Upper Gasconade River Hills have a wide variety of landscapes and natural communities. Except where cleared for livestock and pastures, upland woodland and forest natural communities remain. Bottomlands are mostly cleared for cattle grazing on fescue pastures. Invasive species (e.g. feral hogs, sericea lespedeza, multiflora rose, autumn olive, Russian olive, teasel, Asian clams) affect native habitats. Conservation goals should

include the maintenance and restoration of native oak woodlands and the protection of sensitive cave and aquatic resources. Additional obstacles to conservation success may include woodland and forest fragmentation, finding willing private landowners to implement Best Management Practices, limited funding and staff time and some gravel mining practices.

To learn more about the Upper Gasconade River Hills Conservation Opportunity Area, please contact:



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